

subject matter of the direct examination and matters affecting the credibility of the witness. The judge may, in the exercise of discretion, permit inquiry into additional matters as if on direct examination.

(c) *Leading questions.* Leading questions should not be used on the direct examination of a witness except as may be necessary to develop the witness' testimony. Ordinarily leading questions should be permitted on cross-examination. When a party calls a hostile witness, an adverse party, or a witness identified with an adverse party, interrogation may be by leading questions.

§ 18.612 Writing used to refresh memory.

If a witness uses a writing to refresh memory for the purpose of testifying, either while testifying, or before testifying if the judge in the judge's discretion determines it is necessary in the interest of justice, an adverse party is entitled to have the writing produced at the hearing, to inspect it, to cross-examine the witness thereon, and to introduce in evidence those portions which relate to the testimony of the witness. If it is claimed that the writing contains matters not related to the subject matter of the testimony the judge shall examine the writing in camera, excise any portion not so related, and order delivery of the remainder to the party entitled thereto. Any portion withheld over objections shall be preserved and made available in the event of review. If a writing is not produced or delivered pursuant to order under this rule, the judge shall make any order justice requires.

§ 18.613 Prior statements of witnesses.

(a) *Examining witness concerning prior statement.* In examining a witness concerning a prior statement made by the witness, whether written or not, the statement need not be shown nor its contents disclosed to the witness at that time, but on request the same shall be shown or disclosed to opposing counsel.

(b) *Extrinsic evidence of prior inconsistent statement of witness.* Extrinsic evidence of a prior inconsistent statement by a witness is not admissible un-

less the witness is afforded an opportunity to explain or deny the same and the opposite party is afforded an opportunity to interrogate the witness thereon, or the interests of justice otherwise require. This provision does not apply to admissions of a party-opponent as defined in § 18.801(d)(2).

§ 18.614 Calling and interrogation of witnesses by judge.

(a) *Calling by the judge.* The judge may, on the judge's own motion or at the suggestion of a party, call witnesses, and all parties are entitled to cross-examine witnesses thus called.

(b) *Interrogation by the judge.* The judge may interrogate witnesses, whether called by the judge or by a party.

(c) *Objections.* Objections to the calling of witnesses by the judge or to interrogation by the judge must be timely.

§ 18.615 Exclusion of witnesses.

At the request of a party the judge shall order witnesses excluded so that they cannot hear the testimony of other witnesses, and the judge may make the order of the judge's own motion. This rule does not authorize exclusion of a party who is a natural person, or an officer or employee of a party which is not a natural person designated as its representative by its attorney, or a person whose presence is shown by a party to be essential to the presentation of the party's cause.

OPINIONS AND EXPERT TESTIMONY

§ 18.701 Opinion testimony by lay witnesses.

If the witness is not testifying as an expert, the witness' testimony in the form of opinions or inferences is limited to those opinions or inferences which are rationally based on the perception of the witness and helpful to a clear understanding of the witness' testimony or the determination of a fact in issue.

§ 18.702 Testimony by experts.

If scientific, technical, or other specialized knowledge will assist the judge as trier of fact to understand the evidence or to determine a fact in issue, a